

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for establishing a mapping between internal metadata for a database and external metadata ~~for a report~~, the method comprising:

reading the internal metadata from the database, the internal metadata including metadata that describes data stored in the database;

generating and displaying a screen, the screen including a grid having rows and columns, the rows and columns having dimensional metadata from the internal metadata placed in the grid as row and/or column headings, the grid further including the internal metadata read from the database;

receiving from a user a selection of a portion of the grid, the selection indicating the internal metadata to be mapped to the external metadata; one or more cells of the grid;

in response to receiving the user selection:

determining if the external metadata describing all data points within said selection is predefined, and if so, receiving from said user a definition of external metadata comprising:

presenting said user a list from which they may select an item of predefined metadata; and

receiving from said user a selection of an item of predefined metadata from said list; and

determining if a syntax of the external metadata describing all data points within said selection is predefined and the external metadata for said selection is not predefined, and if so, receiving from said user a definition of external metadata comprising:

presenting said user with one or more dialog boxes in which they can specify external metadata to be created; and

receiving from said user a specification of external metadata to be created; and

creating a mapping between the internal metadata of the selected portion of the grid and the external metadata based on the user selections.

determining the internal metadata displayed on the grid that corresponds to the one or more cells, the internal metadata corresponding to the one or more cells forming a subset of the internal metadata displayed on the grid, wherein the user modifies the internal metadata to indicate the internal metadata is to be mapped to external metadata;

presenting to the user one or more user interface controls for receiving a definition of external metadata for the subset of the internal metadata, the definition of external metadata specifying particular associations of the subset of internal metadata with the external metadata in the report, the definition describing all data points within the user selection;

receiving, via the one or more user interface controls, the definition of external metadata from the user, and based on the definition of the external metadata, creating a first mapping between the selected internal metadata and the external metadata;

generating a report definition for the report, the report definition describing how report data described by the external metadata in the report is to be produced from the data stored in the database and described by the internal metadata; and

storing the report definition, the report definition including the first mapping of internal metadata to external metadata for the report,

wherein the first mapping applies only to a particular report and does not create a persistent association of the internal metadata with the external metadata such that a second report may be defined which uses a second mapping of the internal metadata to the external metadata, said second mapping being different from the first mapping, said second mapping associated with said second report.

2. (Canceled)

3. (Canceled)

4. (Currently Amended) The method of claim [[3]] 1, wherein said list is provided in a tree control.

5. (Canceled)

6. (Currently Amended) The method of claim [[5]] 1, wherein said presenting includes presenting said user with a dialog box in which they can specify an entity for said external metadata to be created.

7. (Currently Amended) The method of claim [[5]] 1, wherein said presenting includes presenting said user with a dialog box in which they can specify units for said external metadata to be created.

8. (Currently Amended) The method of claim [[5]] 1, wherein said presenting includes presenting said user with a dialog box in which they can specify a time period for said external metadata to be created.

9. (Currently Amended) The method of claim [[5]] 1, wherein said presenting includes presenting said user with a dialog box in which they can specify a scenario for said external metadata to be created.

10. (Original) The method of claim 9, wherein a control for said dialog box is a tree control when an element button is selected and a text field when a custom button is selected.

11. (Original) The method of claim 1, wherein said selection is one or more rows in said grid.

12. (Original) The method of claim 1, wherein said selection is one or more columns in said grid.

13. (Previously Presented) The method of claim 1, wherein said selection is one or more individual cells in said grid, wherein said one or more individual cells do not comprise an entire row or an entire column.

14. (Original) The method of claim 13, wherein preexisting mappings for rows or columns containing said selection are overwritten for said selected individual cells.

15. (Original) The method of claim 1, further comprising:
receiving from said user a formula involving one or more data items in said grid;
creating a new row or column in said grid;
entering said formula into a cell in said new row or column; and
wherein said selection includes said cell.

16. (Original) The method of claim 1, wherein said external metadata is Extensible Business Reporting Language (XBRL) metadata.

17. (Original) The method of claim 1, wherein an external metadata source is specified using a schema manager.

18. (Currently Amended) An apparatus that presents a user interface for establishing a mapping between internal metadata for a database and external metadata ~~for a report~~, the apparatus comprising a computer configured with:

means for reading the internal metadata from the database, the internal metadata including metadata that describes data stored in the database;

an internal metadata grid organizer configured to generate and display a screen, the screen including a grid having rows and columns, the rows and columns having dimensional metadata from the internal metadata placed in the grid as row and/or column headings, the grid further including the internal metadata read from the database;

a grid portion user selection receiver coupled to the internal metadata grid organizer to receive from a user a selection of a portion of the grid, the selection indicating one

or more cells of the grid containing internal metadata to be mapped to external metadata in an external system, ~~the external metadata describing report data for the report;~~

means for determining the internal metadata displayed on the grid that corresponds to the one or more cells, the internal metadata corresponding to the one or more cells forming a subset of the internal metadata displayed on the grid, ~~wherein the user modifies the internal metadata to indicate the internal metadata is to be mapped to external metadata;~~

a predefined external metadata selection determiner, wherein said external metadata selection determiner determines if all external metadata of the user selection is predefined, and if so presents a user definition receiver including:

a predefined metadata list presenter; and

a predefined metadata list item receiver coupled to said predefined metadata list presenter; and

an external metadata syntax determiner wherein said external metadata syntax determiner determines if a syntax for all external metadata of the user selection is predefined, and if so, presents a user definition receiver including:

an external metadata dialog box presenter; and

an external metadata specification receiver coupled to said external metadata dialog box presenter.

~~an external metadata user definition receiver coupled to said grid portion user selection receiver configured to present to the user one or more user interface controls for receiving a definition of external metadata for the subset of the internal metadata, the definition of external metadata specifying particular associations of the subset of internal metadata with the external metadata in the report, the definition describing all data points within the user selection, the external metadata user definition receiver being further configured to receive, via the one or more user interface controls, the definition of the external metadata;~~

~~an internal metadata to defined external metadata mapping creator coupled to the external metadata user definition receiver, the internal metadata to defined external metadata mapping creator being configured to create a first mapping between the selected internal metadata and the external metadata specified by the definition of external metadata; and~~

~~a report definition generator configured to generate a report definition for the report, the report definition describing how the report data described by the external metadata in the report is to be produced from the data stored in the database and described by the internal metadata;~~

~~wherein the first mapping is contained in the report definition and applies only to a particular report and does not create a persistent association of the internal metadata with the external metadata such that a second report may be defined which uses a second mapping of internal metadata to external metadata, said second mapping being different from the first mapping, said second mapping associated with said second report.~~

19. (Canceled)

20. (Canceled)

21. (Canceled)

22. (Original) The apparatus of claim 18, further comprising:

a user formula receiver;

a new row or column creator coupled to said user formula receiver and to said internal metadata grid organizer;

a new row or column user formula placer coupled to said new row or column creator and to said user formula receiver.

23. (Currently Amended) An apparatus that presents a user interface for establishing a mapping between internal metadata for a database and external metadata ~~for a report~~, the apparatus comprising a computer configured with:

means for reading the internal metadata from the database, the internal metadata including metadata that describes data stored in the database;

means for generating and displaying a screen, the screen including a grid having rows and columns, the rows and columns having dimensional metadata from the internal

metadata placed in the grid as row and/or column headings, the grid further including the internal metadata read from the database;

means for receiving from a user a selection of a portion of the grid, the selection indicating one or more cells of the grid;

means for determining the internal metadata displayed on the grid that corresponds to the one or more cells, the internal metadata corresponding to the one or more cells forming a subset of the internal metadata displayed on the grid, ~~wherein the user modifies the internal metadata to indicate the internal metadata is to be mapped to external metadata;~~

means for determining if the external metadata describing all data points within said selection is predefined; wherein if the external metadata describing all data points within said selection is predefined, means for receiving from said user a definition of external metadata comprising;

means for presenting said user a list from which they may select an item of predefined metadata; and

means for receiving from said user a selection of an item of predefined metadata from said list; and

means for determining if syntax of the external metadata describing all data points within said selection is predefined; wherein if the external metadata describing all data points within said selection is not predefined, but syntax of the external metadata describing all data points within said selection is predefined, said means for receiving from said user a definition of external metadata comprises;

means for presenting said user with one or more dialog boxes in which they can specify external metadata to be created; and

means for receiving from said user a specification of external metadata to be created.

~~means for presenting to the user one or more user interface controls for receiving a definition of external metadata for the subset of the internal metadata, the definition of external metadata specifying particular associations of the subset of internal metadata with the external metadata in the report, the definition describing all data points within the user selection;~~

~~means for receiving, via the one or more user interface controls, the definition of external metadata from the user, and based on the definition of the external metadata, creating a first mapping between the selected internal metadata and the external metadata;~~

~~means for generating a report definition for the report, the report definition describing how report data described by the external metadata in the report is to be produced from the data stored in the database and described by the internal metadata; and~~

~~means for storing said report definition, the report definition containing the mapping of internal metadata to external metadata for the report,~~

~~wherein the mapping applies only to a particular report and does not create a persistent association of the internal metadata with the external metadata such that a second report may be defined which uses a second mapping of internal metadata to external metadata, said second mapping being different from the mapping, said second mapping associated with said second report.~~

24. (Canceled)

25. (Canceled)

26. (Currently Amended) The apparatus of claim ~~25~~ 23, wherein said list is provided in a tree control.

27. (Canceled)

28. (Currently Amended) The apparatus of claim ~~27~~ 23, wherein said means for presenting includes means for presenting said user with a dialog box in which they can specify an entity for said external metadata to be created.

29. (Currently Amended) The apparatus of claim ~~27~~ 23, wherein said means for presenting includes means for presenting said user with a dialog box in which they can specify units for said external metadata to be created.

30. (Currently Amended) The apparatus of claim 27 23, wherein said means for presenting includes means for presenting said user with a dialog box in which they can specify a time period for said external metadata to be created.

31. (Currently Amended) The apparatus of claim 27 23, wherein said means for presenting includes means for presenting said user with a dialog box in which they can specify a scenario for said external metadata to be created.

32. (Original) The apparatus of claim 31, wherein a control for said dialog box is a tree control when an element button is selected and a text field when a custom button is selected.

33. (Original) The apparatus of claim 23, wherein said selection is one or more rows in said grid.

34. (Original) The apparatus of claim 23, wherein said selection is one or more columns in said grid.

35. (Original) The apparatus of claim 23, wherein said selection is one or more individual cells in said grid.

36. (Original) The apparatus of claim 35, wherein preexisting mappings for rows or columns containing said selection are overwritten for said selected individual cells.

37. (Original) The apparatus of claim 23, further comprising:
means for receiving from said user a formula involving one or more data items in said grid;

means for creating a new row or column in said grid;

means for entering said formula into a cell in said new row or column; and
wherein said selection includes said cell.

38. (Original) The apparatus of claim 23, wherein said external metadata is Extensible Business Reporting Language (XBRL) metadata.

39. (Original) The apparatus of claim 23, wherein an external metadata source is specified using a schema manager.

40. (Previously Presented) The method of Claim 1 wherein:
the internal metadata describes data, contained in the database, from which a report is to be generated; and
the screen includes tools for designing the report.

41. (Previously Presented) The apparatus of Claim 18 wherein:
the internal metadata describes data, contained in the database, from which a report is to be generated; and
the screen includes tools for designing the report.

42. (Previously Presented) The apparatus of Claim 23 wherein:
the internal metadata describes data, contained in the database, from which a report is to be generated; and
the screen includes tools for designing the report.